

WHAT IS CLAIMED IS:

1. An image processing device for processing image data, comprising:

a speech data input unit for inputting speech data  
5 associated with said image data for representing speech;

a voice tone convertor for subjecting said speech data to tone conversion; and

a speech data output unit for outputting said tone-converted speech data in association with said image  
10 data.

2. An image processing device as defined in claim 1, wherein said voice tone convertor stores plural sets of tone mode information;

further comprising a voice tone selector for selecting  
15 one of said plural sets of said tone mode information, wherein said voice tone convertor subjects said speech data to tone conversion according to said selected tone mode information.

3. An image processing device as defined in claim 1, wherein said voice tone convertor generates conversion data for tone conversion control, and sends said conversion data to said speech data output unit;

wherein said tone-converted speech data is constituted by said speech data before being converted and said  
25 conversion data.

4. An image processing device as defined in claim 1, further comprising a text data output unit for outputting text data in association with said image data, said text data representing text.

5. An image processing device as defined in claim 4, further comprising a speech/text convertor for converting  
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said speech data from said speech data input unit into said text data.

6. An image processing device as defined in claim 4, further comprising a text data input unit, externally operable, for inputting said text data.

7. An image processing device as defined in claim 4, wherein said text data includes at least one of a letter, a number and a sign.

8. An image processing device as defined in claim 1, further comprising:

a text data input unit for inputting text data associated with said image data for representing text;

a text/speech convertor for converting said text data into speech data, and sending said speech data to said speech data output unit.

9. An image processing device for processing image data, comprising:

a speech data input unit for inputting speech data associated with said image data for representing speech;

a voice tone convertor for generating conversion data for tone conversion control; and

a speech data output unit for outputting a combination of said speech data and said conversion data in association with said image data.

10. An image processing device for processing image data, comprising:

a data input unit for inputting text data associated with said image data for representing text;

a convertor for converting said text data into speech data for representing speech; and

a data output unit for outputting said speech data in

association with said image data.

11. An image processing device as defined in claim 10, wherein said data output unit further outputs said text data in association with said image data.

5 12. An image processing device for processing image data, comprising:

a data input unit for inputting speech data associated with said image data for representing speech;

a convertor for converting said speech data into text  
10 data for representing text; and

a data output unit for outputting said text data in association with said image data.

13. An image processing device for processing image data, comprising:

15 a text data input unit for inputting text data associated with said image data for representing text; and

a data output unit for outputting said text data and conversion data in association with said image data, said conversion data being adapted to production of speech  
20 according to said text data.

14. A printer for printing an image to recording material according to image data, comprising:

a speech data input unit for inputting speech data associated with said image data for representing speech;

25 a voice tone convertor for subjecting said speech data to tone conversion; and

a speech data recorder for recording said tone-converted speech data to said recording material in association with said image.

30 15. A printer as defined in claim 14, wherein said voice tone convertor stores plural sets of tone mode

information;

further comprising a voice tone selector for selecting one of said plural sets of said tone mode information, wherein said voice tone convertor subjects said speech data  
5 to tone conversion according to said selected tone mode information.

16. A printer as defined in claim 14, wherein said voice tone convertor generates conversion data for tone conversion control, and sends said conversion data to said  
10 speech data recorder;

wherein said tone-converted speech data is constituted by said speech data before being converted and said conversion data.

17. A printer as defined in claim 14, wherein said  
15 recording material is photosensitive material;

further comprising an image forming unit for optically printing said image to said recording material, said image forming unit further constituting said speech data recorder optically to print said speech data.

20 18. A printer as defined in claim 17, wherein said image forming unit prints said speech data in a bar code form.

19. A printer as defined in claim 14, wherein said recording material includes a magnetic recording region, and  
25 said speech data recorder magnetically records said speech data.

20. A printer as defined in claim 14, further comprising:

a speech/text convertor for converting said speech data  
30 from said speech data input unit into text data for representing text; and

a text data recorder for recording said text data to said recording material in association with said image.

21. A printer as defined in claim 14, further comprising:

5 a text data input unit, externally operable, for inputting text data for representing text; and

a text data recorder for recording said text data to said recording material in association with said image.

22. A printer as defined in claim 21, wherein said text data includes at least one of a letter, a number and a sign.

23. A printer as defined in claim 21, wherein said recording material is photosensitive material;

15 further comprising an image forming unit for optically printing said image to said recording material, said image forming unit further constituting said text data recorder optically to print said text data.

24. A printer as defined in claim 21, wherein said text data recorder prints said text data by use of ink, toner or dye.

25. A printer as defined in claim 14, further comprising:

a text data input unit for inputting text data associated with said image data for representing text;

25 a text/speech convertor for converting said text data into speech data, and sending said speech data to said speech data recorder.

26. A printer for printing an image to recording material according to image data, comprising:

30 a speech data input unit for inputting speech data associated with said image data for representing speech;

a voice tone convertor for generating conversion data for tone conversion control; and

a speech data recorder for recording a combination of said speech data and said conversion data to said recording material in association with said image.

27. A printer for printing an image to recording material according to image data, comprising:

a data input unit for inputting text data associated with said image data for representing text;

10 a convertor for converting said text data into speech data for representing speech; and

a data recorder for recording said speech data to said recording material in association with said image.

28. A printer as defined in claim 27, wherein said data recorder further records said text data to said recording material in association with said image.

29. A printer for printing an image to recording material according to image data, comprising:

a data input unit for inputting speech data associated with said image data for representing speech;

a convertor for converting said speech data into text data for representing text; and

a data recorder for recording said text data to said recording material in association with said image.

30. A printer for printing an image to recording material according to image data, comprising:

a text data input unit for inputting text data associated with said image data for representing text; and

a data recorder for recording said text data and conversion data to said recording material in association with said image, said conversion data being adapted to

production of speech according to said text data.